



Site Investigation &
Restoration Branch

March 1st, 2007

Qazi Salzuddin, Ph.D.
Program manager
DNREC-SIRB

1:58 p.m.

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Re: Report by Schnabel Engineering, "Hay Road Sludge Drying site, Cherry Island. Schnabel Reference 06150049

Dear MR. Salzuddin,

Hello, my name is Richard Schneider, a concerned citizen. The following are my comments about the Schnabel Report, the toxic pile and concerns and solutions.

Schnabel did a very good report. Schnabel covered the many items that need to be considered to develop a complete risk assessment. Also covered many items that were a concern of the public. Also proposed other remedies other than trucking the material away. Schnabel suggested train which is much safer and economical and is already in use by Dupont to transport material in and out of the facility. The public suggest trains, Dupont did not.

Dupont on the other hand, did their best to taint the study in their favor. They

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provided little or insufficient data. They did not consider contaminants migrating from sides or underneath. Both with toxins leaching out of ground water, rain water, flood water or storm surge, coming in.

They only considered a cover to stop dust, as a remedy. There is no protection considered for the sides or the bottom.

They did not consider location, on the banks of the Delaware river and shellpot creek and how great it increases the risk.

Dupont's effort for a complete risk assessment was just ridiculous and just a scam. It was just an illusion, smoke and mirrors, like a magician to trick people. They only intended to mislead, misinform and taint to their favor.

All aspects of the study should be handled by an independent group and DNREC, not Dupont.

Here are important aspects of risk that should and must be considered.

Complete testing for all contaminants: radiation, Dioxin, Benzene, toxic metals, chlorides etc.

The total sum of all contaminants must be considered. Not the level of one, but the cumulative effect of all contaminants found. The total makes it more harmful and increases risk and damage.

Here's an example. You have a liquid that you drink. It has many toxins in it. Say it has

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30 different toxins in it. The individual level of each one toxin may not be able to kill you. However, the cumulative effect of all the toxins would kill you.

The same is for the IRM (Iron Rich material). It does not just have one contaminant in it. It has many.

The risk for the material must be calculated for the sum of all the toxins, not just the level of one.

Testing to be done by an independent organization overseen by DNREC. Dupont has a tendency to try to manipulate data to their benefit. An independent study can only be independent if it has independent data.

Modes of migration of toxins must be considered from all directions, not just from the top. Migration and leaching from sides and underneath must be taken into account. This is a major concern of the public because there is no protection from the sides or the bottom.

The true estimate of the cap (a few decades) must be used in calculating risk of capping remedy. Not Dupont's overestimated longevity of 500 years.

The inability of geosynthetic clay liners (GCLs) as capping systems to perform well must be considered. They have proven ineffective.

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The options of transporting by train rather than truck must be completely reviewed and considered. By train is much safer than truck and less expensive. Dupont in the past and presently transport material in and hazardous waste out by train and have proven totally successful & safe. Over many years Dupont has transported material many more times more than what is in the pile. Dupont chose not to include trains as a remedy. By train is a remedy, safe, effective and inexpensive. The train infrastructure already exists.

Also in the public hearings, Dupont's own engineer testified that the toxic waste can be removed safely and successfully from the site the same way as asbestos.

Removal of hazardous waste has been done at other sites. So removal risk is none and proven safe.

Locations of the pile must be considered in risk for capping. It is surrounded on two sides by water, Shellpot Creek on one side and the Delaware River on the other. Its elevation is at sea level, which is very important and a risk and problem.

Consideration for flooding by Shellpot Creek and the Delaware River must be considered

Storm surges from Hurricanes must be considered a great risk because we are in a

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hurricane zone.

AND History shows, that in 2003, Flooding by Hurricane Isabel flooded the area and a large amount of the pile flowed into the river. DNREC reported this. Future flooding is likely.

Rising sea levels must be considered in risk. Sea levels will be rising and will increase risk overtime. Someday the pile will be under water and must be considered

To say it is not in a flood plain is ridiculous. It is in a flood plain, has flooded and spilled into the river and will again

It is the worst location for a hazardous waste site.

The permeability of the dredge material under the IRM and the IRM itself is very high. Both are high risk material.

The dredge material (DRM) has already been contaminated by the IRM and would also have to be removed.

Leaching has and continues to occur.

At the public hearings, Dupont's own GEOAQUA engineer was asked about the orange goo seeping out of the banks of the shell pot creek. He testified and verified that it was groundwater seeping out of the pile and dredge material.

Dupont's own expert testified to this. That's the problem. NO protection.

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The pile was stored there without a permit. The area was only considered for storage. There was no design or effort to be a hazardous waste site. No precautions, safety design or effort were taken. It meets no standards to be a hazardous waste site.

RICRA has standards to store hazardous waste. This site doesn't even come close to a RICRA site. Hazardous waste must be stored in an approved certified hazardous waste site. It applies to all, everyone. No exemptions. Just because Dupont does not want to spend the money, does not make them exempt.

There are so many facts that show this toxic pile must be removed.

- * No permit to store
- * Meant to be storage site only
- * Not designed as hazardous waste site
- * Meets no standards for RICRA hazardous waste site
- * No protection along sides or bottom.
- * sits on highly permeable dredge material
- * IRM highly permeable
- * IRM contains many contaminants: benzene, Dioxin, furans, PCBs, Heavy metals, radiation and others
- * Worst location possible, on river and stream bank, and at sea level
- * Subject to storm surge in Hurricane zone.
- * History of flooding. In 2003 Hurricane Isabell, IRM spilled into River

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- * can be removed safely like asbestos and other sites
- * train transport safe and economical
- * train infrastructure already present at site.

Even though the Schnabel report was not complete, it shows capping is insufficient, risks are high. Problems are many. Safer options (remove by train) are possible and safe.

The pile should be removed as soon as possible to stop continued damage to the environment, humans, aquatic and wildlife's health.

If decided more data is needed, data should be obtained by independent source, not Dupont, supervised by DNREC.

Schnabel did an excellent job. If the report should be concluded, Schnabel should be chosen. They have thorough knowledge of the problem. So not to start all over, wasting time and money, Schnabel should finish risk assessment. They are truly competent and independent.

The same type of titanium dioxide plant is located in DeLisle mississippi and is also owned and operated by Dupont. The same Iron Rich Material (IRM) is produced by the DeLisle plant.

It is located at the shores of St. Louis Bay on the Gulf coast. Major problems there occurred with the toxic waste. In depth studies published in the journal of shellfish research proved that IRM from the plant poisoned the oysters in

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the St. Louis Bay so severely that you cannot even eat one a day.

There was concern about the plant. The oyster industry tested in 1978 before the plant started operations, the oysters. They used this data as a baseline. The oysters tested OK, no problems, not toxic in 1978.

In 2003, with concerns about large disproportionate and unusual increase in cancer in the community, they retested the oysters.

They found now the oysters were so toxic you shouldn't even eat one. The toxins were the same toxins in the IRM. The only change to the bay ~~was~~ between 1978 and 2003 was the addition of the Dupont plant.

This testing was done by quality, certified organizations.

This is proof that the Iron Rich material can and does poison the environment, people and aquatic life.

The Delisle plant is the same as the Edgemore plant, same product, same processes and same waste.

I've given a copy of the oyster study to Director Tim Werner and also to the director of fish and wildlife. If needed, more copies can be provided by me.

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The goal is to do what is right to protect
the health of the people, aquatic life, wildlife
and the environment for us and future
generations.

Thank you
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